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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,419	02/26/2002	Andrew Thomas LeCren	CE04956N/10-54	6795

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EXAMINER

TRAN, TUAN A

ART UNIT PAPER NUMBER

2682

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/083,419	Applicant(s) LECREN, ANDREW THOMAS	
	Examiner Tuan A. Tran	Art Unit 2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-21 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-14 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 15 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morikawa (5,898,829) in view of Bishop et al. (4,823,256).

Regarding claims 9 and 11-12, Morikawa discloses a multi-processor based apparatus arranged and constructed to dynamically reallocate processors to provide redundant functionality (See fig. 2 and col.3 line 41 to col. 4 line 14), the apparatus comprising in combination: a first processor 10 supporting a first function (carrying out control for the controlled system) having a first priority (active); means 22 for detecting a fault in the first function; a second processor 20 supporting a second function (carrying out control for the control system) having a second priority (backup) (See fig. 2 and col. 6 line 59 to col. 7 line 25); and means for reallocating, responsive to the fault, the second processor 20 to support the first function when a predetermined relationship corresponding to the first priority and the second priority exist including the first priority exceeding the second priority and a type of major fault (failure) (See fig. 2 and col. 9 line 12 to col. 10 line 10). However, Morikawa does not mention that the second function is different than the first function. Bishop teaches a dual processor system (See fig. 1) has two mode of operation: a converged mode in which one of the two processors is

active and executing all system tasks while the other is backup; and in a diverged mode in which both processors are active and independently executing different tasks, wherein the system can change from one mode to the other mode (See fig. 1 and Abstract, col. 2 line 39 to col. 3 line 44). Since both Morikawa and Bishop teach about multi-processor based system; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teachings of Bishop in modifying the system as disclosed by Morikawa for the advantage of providing a powerful system in term of processing capability and highly reliable.

Claims 1, 3-4 are rejected for the same reasons as set forth in claims 9 and 11-12, as method.

Regarding claim 10, Morikawa & Bishop disclose as cited in claim 9. Morikawa further discloses the first processor is allocated to the second function upon recovery of the first processor from the fault (See col. 10 lines 11-15).

Claim 2 is rejected for the same reasons as set forth in claim 10, as method.

2. Claims 5-6 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morikawa (5,898,829) in view of Bishop et al. (4,823,256) as applied to claims 3 and 11 above, and further in view of Goodwin et al. (4,654,846).

Regarding claims 13-14, Morikawa & Bishop disclose as cited in claim 11. However, they not mention that reallocating the second processor (backup) is delayed for a predetermined time sufficient to allow for a possible recovery of the first processor from the minor fault and the reallocating occurs immediately when the minor fault has

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repeated a predetermined number of times. Goodwin teaches a multi-processor based apparatus (See fig. 1) wherein the reallocating the second processor (backup) is delayed for a predetermined time sufficient to allow for a possible recovery of the first processor 31 from the minor fault and the reallocating occurs immediately when the minor fault has repeated a predetermined number of times (See fig. 1 and col. 2 lines 45-62, col. 3 lines 12-52, col. 4 lines 28-57). Since both Morikawa & Bishop and Goodwin teach about the multi-processor based apparatus with redundant functionality; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teachings of Goodwin in controlling the reallocation of the backup processor for the advantage of eliminating unnecessary reallocations to avoid service interruption as well as improving fault tolerance of the system.

Claims 5-6 are rejected for the same reasons as set forth in claims 13-14, as method.

Allowable Subject Matter

3. Claims 7-8 and 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 15-16, Morikawa & Bishop disclose as cited in claim 11. However, they not mention that reallocating the second processor occurs when the predetermined relationship corresponds to having a multiplicity of the second

processors that supports a multiplicity of the second functions satisfy a threshold number of the second processors.

Claims 7-8 are objected for the same reasons as set forth in claims 15-16.

4. Claims 17-21 are allowed.

The following is an examiner's statement of reasons for allowance:

The closest prior art to the claimed subject matter is Berry et al. (5,953,676). Berry discloses a base station controller comprising a mobility manager for handling all base station resource assignments and a transcoder for supporting all calls, the transcoder further including: means for inter-coupling the base station and the network switch; a operations and maintenance processor (OMP) for providing control and system level functions having a first priority for the transcoder; a call processing processor (CPP) for managing transcoder resource that are assigned by the OMP to establish and handoff calls having a second priority. However, none of prior arts of record discloses means for reallocating, responsive to the detected fault in the control and system level functions, the CPP to support the control and system level functions when a predetermined relationship corresponding to the first priority and the second priority exists.

Response to Arguments

Applicant's arguments with respect to claims 1-6 and 9-14 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan Tran** whose telephone number is **(571) 272-7858**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Nick Corsaro**, can be reached at **(571) 272-7876**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

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(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.


Tuan Tran

AU 2682


NICK CORSARO
PRIMARY EXAMINER